



**Proposal for New Task Force on Technical Barriers
and R&D Opportunities for Offshore, Sub-Seabed
Geologic Storage of Carbon Dioxide**

John Litynski and Mark Ackiewicz

Technical Group Meeting

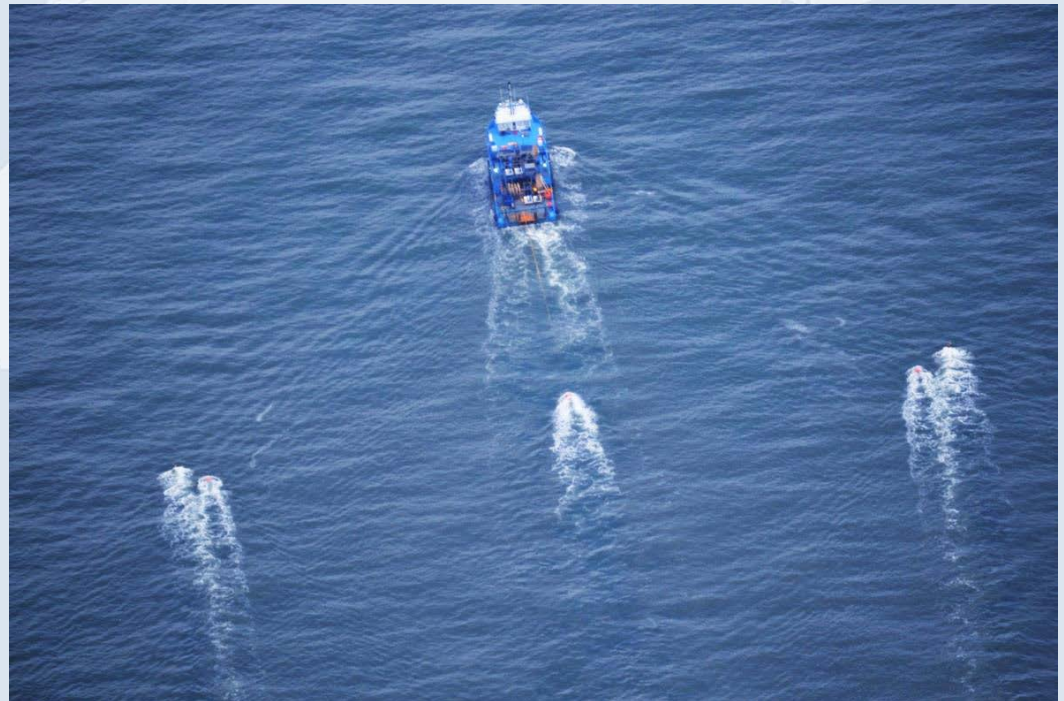
Warsaw, Poland

October 28, 2014



Purpose of Task Force

Identify technical barriers and R&D needs/opportunities for offshore, sub-seabed storage of carbon dioxide.





Background

- **November 2013: Washington, DC Ministerial Meeting:**
 - University of Texas-Bureau of Economic Geology presented to Technical and Policy Groups on Advancing Global Offshore CCS.
 - Ministerial Communique included reference to offshore storage since diverse suite of options will be necessary for CCS deployment.



Planned Timeline of the Task Force

- February 2014: Task Force Proposal developed and included on CSLF Seoul Meeting Website.
- March 25, 2014: Seoul, Korea Technical Group Meeting.
- April 30, 2014: Membership Established/Finalized.
- June 30, 2014: Outline of Report Drafted.
- October 28, 2014: Progress/Status report at CSLF Technical Group Meeting.
- **December 31, 2014: First draft of report completed (may be delayed, but still on track for June 2015 final report).**
- **June 1, 2015: Task Force Report finalized and report findings and conclusions at Technical Group Meeting in Regina, Saskatchewan, Canada.**



Report Outline

TABLE OF CONTENTS - DRAFT

EXECUTIVE SUMMARY (~ 5 pages) (USA)

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION (~ 4 pages) (USA)

1.1 CSLF Purpose

1.2 Task Force Mandate

1.3 Advantages and Challenges of Offshore CO₂ Storage

2. Existing and Proposed Offshore CO₂ Storage and EOR Projects (~ 10 pages)

2.1 Status and Experience from Existing Offshore CO₂ Storage and EOR Projects

2.2 Barriers to Large-scale Offshore Project Demonstration and Deployment

2.3 Opportunities and Recommendations for Overcoming Barriers



Report Outline

3. OFFSHORE CO₂ STORAGE AND ENHANCED OIL RECOVERY RESOURCE ASSESSMENTS (~ 10 pages) (USA)

3.1 Status of Resource Assessments

3.1.1 Saline

3.1.2 Oil and Gas

3.1.3 Basalt

3.2 Components of Resource Assessments

3.3 Summary of Available Resource Assessment Methodologies

3.4 Opportunities and Recommendations

4. CO₂ TRANSPORT FOR OFFSHORE STORAGE (~ 10 pages) (Norway)

4.1 Transport Methods

4.1.1 Pipelines

4.1.2 Ships

4.2 Current Status

4.3 Technical Challenges or Technology Gaps

4.4 R&D Opportunities

4.5 Regulatory Requirements

4.6 Recommendations



Report Outline

TABLE OF CONTENTS - DRAFT

5. RISK ANALYSIS FOR OFFSHORE STORAGE (~ 10 pages) **(Japan)**

- 5.1 Potential Risks
- 5.2 Monitoring Tools for Risk Control
- 5.3 Simulation Tools for Risk Assessment
- 5.4 Technical Challenges
- 5.5 R&D Opportunities
- 5.6 Recommendations

6. WELLBORE MANAGEMENT (~ 10 pages)

- 6.1 Well Drilling Technologies
- 6.2 Wellbore Construction Materials and Integrity
- 6.3 Wellbore Remediation
- 6.4 Technical Challenges or Technology Gaps
- 6.5 R&D Opportunities
- 6.6 Recommendations

Carbon Sequestration Leadership Forum

Report Outline

www.cslforum.org



TABLE OF CONTENTS - DRAFT

- 7. MONITORING, VERIFICATION, AND ASSESSMENT TOOLS FOR OFFSHORE STORAGE (~ 10 pages) **(Norway)**
 - 7.1 Subsurface MVA Tools
 - 7.2 Seafloor to Surface Water MVA Tools
 - 7.3 Technical Challenges or Technology Gaps
 - 7.4 R&D Opportunities
 - 7.5 Recommendations

- 8. SUMMARY OF REGULATORY REQUIREMENTS FOR OFFSHORE STORAGE (~ 8 pages) **(IEAGHG)**
 - 8.1 International Regulatory Requirements (Existing and Proposed)
 - 8.2 Examples of Specific National Regulatory Requirements (Summarize or reference to the extent practical)
 - 8.3 Implications of Regulatory Requirements on Technology Development
 - 8.4 Implications of Technology Development on Regulations (i.e., better modeling/simulation tools, etc. and influence on regulations)

- 9. SUMMARY AND CONCLUSIONS (~ 5 pages) **(USA)**

- 10. REFERENCES **(USA)**